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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,410

11/26/2003

Hao Cheng

244915US8

6591

22850

7590

08/10/2007

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

KANG, SUK JIN

ART UNIT

PAPER NUMBER

2616

NOTIFICATION DATE

DELIVERY MODE

08/10/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/721,410

Applicant(s)

CHENG ET AL.

Examiner

Suk Jin Kang

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, and 9 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement submitted on February 24, 2004 has been considered by the Examiner and made of record in the application.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1, 2, 5, 6, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Liebowitz et al.** (U.S. Patent # 5,812,545) in view of **Agarwal et al.** (U.S. Patent # 6,839,332 B1).

Consider **claims 1, 6, and 9**, Liebowitz et al. discloses a synchronous communication system, comprising a transponder configured to be hosted on a satellite (14, figure 1, column 3 lines 39-44); and a plurality of user nodes (12, terminals, figure 1, column 3 lines 39-44); means for creating a burst time plan that allocates a number of slots and a location of each slot in a frame time period to each user node (column 5 lines 40-57, column 9 lines 33-56, column 11 lines 19-24), means for transmitting a frame to each user node, the frame including the burst time plan (column 5 lines 40-57, column 9 lines 49-64), and said plurality of user nodes comprising means for transmitting a respective data burst in the frame time period from each user node according to the burst time plan (column 9 lines 40-44, column 12 lines 5-25), wherein

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each data burst includes user data segments (payload) in a position of at least one slot in the frame time period allocated to the respective user node according to the burst time plan (column 9 lines 40-44 and 49-56), and the position of each slot in the frame time period allocated to the respective user node is equally spaced along a time axis (column 11 lines 1-24, column 12 lines 7-23).

However, Liebowitz et al. may not expressly disclose a hub and wherein a start of the frame time period from each user node occurring at the hub simultaneously.

In the same field of endeavor, Agarwal et al. discloses a hub (column 4 lines 13-21) and wherein a start of the frame time period from each user node occurring at the hub simultaneously (column 6 lines 43-48).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a hub and start of frame time as taught by Agarwal et al. with the system as disclosed by Liebowitz et al. for the purpose of improving communications between users and a hub in a satellite communication network.

Consider **claims 2 and 6**, and as applied to claims 1 and 5, respectively, Liebowitz et al., as modified by Agarwal et al., discloses the claimed invention, furthermore, Agarwal et al. also discloses the method and system wherein the hub is further configured to transmit a respective data burst in a frame time period is performed using a plurality of channels (column 6 lines 29-32 and 57-63).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

a) Saburi (U.S. Patent # 4,688,216) teaches a station relief arrangement for use in relieving operation of a reference station in a TDMA network without reduction of frame availability.

b) Heath (U.S. Patent # 6,842,437 B1) teaches a system for providing satellite bandwidth on demand employing uplink frame formatting for smoothing and mitigating jitter and dynamically changing numbers of contention and data channels.

c) Hutchings (U.S. Patent Application Publication # 2002/0089946 A1) teaches a system and method for providing a timing reference for data transmissions in a satellite-based communications network.

6. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

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7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Suk Jin Kang whose telephone number is (571) 270-1771. The examiner can normally be reached on Monday - Friday 8:00-5:00 EST.

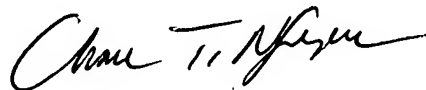
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Suk Jin Kang
S.J.K./sjk

July 31, 2007



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